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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,894	09/23/2003	Edward Zuzelo	ZUZELO-4	3584

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/668,894	Applicant(s) ZUZELO, EDWARD	
	Examiner Marc Jimenez	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-6 and 11-14 in the reply filed on 12/14/05 is acknowledged.
2. Applicant has canceled the non-elected claims.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference numeral 32 is missing from figure 3 as described on page 12, line 4 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both the arbor and the hole in figure 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: on page 9, lines 17-18, "The radius of curvature for all five rounded intersections is the same." appears to be misleading because as shown in figure 1, the rounded sections do not appear to have the same radius of curvature. For example, the radius of curvature of **16** appears to be less than the radius of curvature near lead line **24** where the top side edge meets the short side edge **24**.

Appropriate correction is required.

Claim Objections

6. Claim 1 is objected to because of the following informalities: "blasé" in line 4 should be - - blade - -. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3726

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 6 and 11-14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites that the “the points of intersection are rounded”. This limitation is unclear because a point does define a rounded intersection. A point is just that, a point in space. It appears that applicant means that there are “sections” or “portions” that define a rounded intersection.

Claim 11 recites “the geometric center” in lines 7-8 which lacks proper antecedent basis.

Claim 11 recites “a mounting hole that corresponds to the geometric center” which is vague and indefinite because it is unclear what the limitation “corresponds to” encompasses.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claim 1** is rejected under 35 U.S.C. 102(e) as being anticipated by Singh et al. (US6691596).

Singh et al. teach providing a circular blade **122** (figure 4) having a geometric center

Art Unit: 3726

point **140**, forming an arbor mounting hole **124** in the circular blade **122** that is symmetrically shaped about either side of a mid-line **141**, wherein the mid-line **141** does not extend through the geometric center point **140** of the circular blade.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claim 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Zuzelo (US5477845).

Singh et al. teach the invention cited with the exception of the arbor mounting hole including five flat edges.

Zuzelo teaches forming an arbor mounting hole having five flat edges (col. 2, lines 50-52).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Singh et al. with an arbor mounting hole having five flat edges, in light of the teachings of Zuzelo, in order to provide a more secure attachment to the arbor.

13. **Claims 3, 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Conley et al. (US6846223).

Singh et al. teach the invention cited with the exception of having the claimed arbor mounting hole features.

In figure 3, Conley et al. teach in the vicinity of reference numeral **316**, first and second long side edges intersecting at a first angle, wherein the first angle is bisected by the midline **312**, a top side edge (above reference numeral **316**) that lay perpendicular to the mid-line **312**, first and second short side edges connecting the first long side edge to the top side edge and the second long side to the top side edge (see to the left and right of reference numeral **316**).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Singh et al. with first and second long side edges intersecting at a first angle, wherein the first angle is bisected by the midline, a top side edge that lay perpendicular to the mid-line, first and second short side edges connecting the first long side edge to the top side edge and the second long side to the top side edge, in light of the teachings of Conley et al., in order to more securely fasten the blade to the arbor.

Regarding claim 5, see Conley et al., figure 3, which show a continuous hole with five points of intersection between sides.

Regarding claim 6, as best understood, Conley et al. teach in figure 3, sections which are rounded at the intersection.

14. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Conley et al. alone or over Singh et al. in view of Conley et al. as applied to claim 3 above, and further in view of Zuzelo.

Singh et al./Conley et al. teach the invention cited with the exception of the short side edges being straight edges. It is noted that the top and long edges are straight (see figure 3 of Conley et al.). Whether the short side edges are straight or curved as shown by Conley et al., is considered an obvious matter of design choice to person of ordinary skill in the art, since the use of a curved or straight edge would work equally as well in securing the blade to the arbor.

Alternatively, Zuzelo teaches that an arbor hole could be any shape including four-sided or five-sided or more (col. 2, lines 46-52). It is inherent that the sides are straight. Zuzelo gives an example of a three sided arbor in figure 5 that has all straight edges.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Singh et al./Conley et al. with straight short side edges, in light of the teachings of Zuzelo, in order to provide a secure attachment to a straight edged arbor.

15. **Claim 11** rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Curtsinger et al. (US6729220).

Singh et al. teach an arbor hole **24** (figure 1) formed about an imaginary mid-line **41**, wherein the imaginary mid-line **41** is offset from a geometric center **40** of the circular blade **22**.

Singh et al. teach the invention cited above with the exception of providing at least one removable insert that is received by the arbor hole.

Curtsinger et al. teach forming an arbor hole **26** including providing at least one removable insert **28** that is received by the arbor hole **26**.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Singh et al. with a removable insert, in light of the teachings of Curtsinger et al., in order to reduce inner stresses in the saw blade as suggested by Curtsinger et al. (col. 2, lines 11-12). Regarding the limitation “said insert defines a mounting hole that corresponds to the geometric center of the circular blade”, it is noted that Curtsinger et al. teaches a mounting hole **38** that “corresponds to” the geometric center **40** of the circular blade as defined by Singh et al. The limitation “corresponds to” is broad enough to encompass that two elements are near each other.

16. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Curtsinger et al. as applied to claim 11 above, and further in view of Zuzelo.

It is noted that Curtsinger et al. teach four straight sides rather than at least five straight sides.

However, Zuzelo teaches an arbor hole can have four or five sides (col. 2, lines 50-51).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Singh et al./Curtsinger et al. with at least five straight sides, in light of the teachings of Zuzelo, in order to securely fasten the blade to an arbor having five straight sides.

17. **Claims 13-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Curtsinger et al. and Zuzelo as applied to claim 12 above, and further in view of Conley et al.

Singh et al./Curtsinger et al./Zuzelo teach the invention with the exception of having the claimed arrangement of the five sides.

In figure 3, Conley et al. teach five sides arranged in the claimed manner (see also paragraph 12. above for a detailed explanation of the arrangement of the sides as claimed.

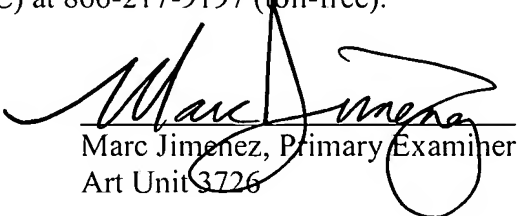
Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Singh et al./Curtsinger et al./Zuzelo, with the claimed arrangement of the five sides, in light of the teachings of Conley et al., in order to more securely fasten the blade to the arbor. In view of Zuzelo, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided straight sides, in order to attach the blade to an arbor having straight sides.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marc Jimenez, Primary Examiner
Art Unit 3726

MJ 2-27-06